Remarks

Oath/Declaration

A new declaration in compliance with 37 CFR 1.67(a) is enclosed.

Drawings

Applicant thanks Examiner for due diligence in objecting to deficiencies in the drawings.

For comprehensiveness, all drawings are replaced, and are now hopefully in compliance with 37 CFR 1.121(d) and 37 CFR 1.84(p)(5), with the following specific changes from the originally submitted drawings:

- Figure 1, sheet 1: CPU 102 was wrongly numbered;

- Figure 17, sheet 8: items 53 and 58 had the wrong font;

- Figure 18, sheet 9: item 39 had an obscured line;

- Figure 18, sheet 9: item 38 has been renumbered to item 28 to correspond to the reference in the specification.

- Figure 19, sheet 10: item 39 had an obscured line;

- Figure 7, sheet 7: the reference characters (numbers) from items 61-62 have been removed because they were not referenced in the description;

- Figure 8, sheet 7: the reference characters (numbers) from items 63-64 have been removed because they were not referenced in the description;

- Figure 14, sheet 6: the reference characters (numbers) from items 213 & 216 have been removed because they were not referenced in the description;

- Figure 15, sheet 7: the reference characters (numbers) from items 44-45 have been removed because they were not referenced in the description;

- Figure 17, sheet 8: the reference characters (numbers) from items 53, 56, 58, 808, 70, 71 have been removed because they were not referenced in the description;

- Figure 18, sheet 9: the reference characters (numbers) from items 65, 72, 86 have been removed because they were not referenced in the description. Item 63, mentioned by the Examiner for deletion, is referenced on page 16, line 23 in the description.

- Figure 19, sheet 10: the reference characters (numbers) from items 63, 65 have been removed because they were not referenced in the description.

Examiner cited instances under 37 CFR 1.84(p)(5) of missing reference signs in the drawings mentioned in the description:

- Figure item 3 (mentioned on page 5, line 16): appears in Figure 3 on drawing sheet 1 (and was in the originally submitted drawings);

- Figure item 109 (page 5, line 16): appears in Figure 13 on drawing sheet 5 (and was in the originally submitted drawings);

- Figure item 97 (page 6, line 12): appears in Figure 2 on drawing sheet 1 (and was in the originally submitted drawings);

- Figure item 27 (page 15, line 15): appears in Figure 2 on drawing sheet 1 (and was in the originally submitted drawings);

- Figure item 28 (page 15, line 15): now appears in Figure 18 on drawing sheet 9 (was previously wrongly numbered 38 in the drawing);

Specification

Examiner mentioned the proper form of the Abstract, and put an objection checkmark on the office action summary, but Applicant cannot find fault with the previously submitted Abstract in light of the guidelines provided by the Examiner, 37 CFR 1.72, or MPEP 608.01(b). If Examiner would point out particular deficiencies, Applicant would readily make changes.

Claim Rejections - 35 USC §112

Examiner rejected claim 7 "said user-determined signal type" on the basis of 35 USC §112 as lacking antecedent basis. Applicant respectfully submits that antecedent basis existed in the previously presented claim, but in the interest of compact prosecution, applicant has currently amended the claim to clarify that "said user-determined signal type" refers to the received user-determined signal type ("receiving said user determination of at least one signal type") specified in claim 6. Certainly as amended the aforementioned reference in claim 7 is clear, and especially so in light of the foregoing statement of claim construction and attendant prosecution estoppel.

Claim Rejections - 35 USC §101

Applicant thanks Examiner for pointing out the non-statutory subject matter claimed previously in independent claims 1-3, and their dependents 6-15. Claims 1-3 are currently amended so as to render the subject matter statutory, and thereby place the claims in condition for allowance.

Claim Rejections - 35 USC §102

USPN 6,442,692 (Zilberman) re: claims 1-4, 6-8, 16-18

Applicant respectfully observes that Zilberman was in no way anticipatory of independent claims 1 & 4, and their attendant dependent claims (6-8 & 16-18), as Zilberman lacked the requisite user determinations as claimed.

Regarding claim 1 and its dependent claims, there is no mention anywhere in Zilberman's specification or claims that suggest Zilberman anticipated a user determining transmission type. This is demonstrated most readily by Zilberman restricting himself keyboard input, a single transmission type. With all due respect, applicant could not determine that Examiner's citation of Zilberman [4:60-5:27] disclosed what Examiner asserted.

To promote further understanding, below is the relevant paragraph defining transmission and transmission type, from page 4, lines 12-17 of the disclosure:

> A transmission 1 is user input into the computer 100 via one or more input devices 106, whereupon termination of transmission 1 is recognizable, and resulting in at least one signal 2. There may be different types 11 of transmissions 1, examples of which include mouse 107 movements or clicks, keyboard 108 entry, or combinations thereof. Other types 11 of transmissions 1 are possible with different input devices 106, such as, for example, voice transmission 1 if the computer 100 is equipped with a microphone and speakers.

A transmission, as defined above, "is user input into the computer via one or more input devices". A transmission type, as stated above, is device specific, either by a single device - keyboard input being exemplary, or a combination of devices which may define a type - keyboard + mouse input being exemplary.

The same argument with regard to user determination of transmission type applies to rejection of claim 4 and its dependents as to claim 1: Zilberman offered no anticipation. With all due

respect, applicant could not determine that Examiner's citation of Zilberman [7:37-8:39] disclosed what Examiner asserted.

Applicant respectfully submits that Zilberman struck out twice in lacking anticipation of claims 6-7, and 16-17 by lacking user determination of: [1] transmission type (from claim 1), and [2] signal type (from claims 6, 7). With all due respect, Examiner's citation of Zilberman [4:60-5:27] did not disclose what Examiner asserted.

Regarding claim 8, respectfully submitted that Zilberman did not appear to anticipate a signature being the claimed "entirety of a resource access submission". With all due respect, applicant could not determine that Examiner's citation of Zilberman [7:37-8:39] disclosed what Examiner asserted.

Zilberman offered no user determination as claimed in rejected claims 1, 4, 6-8, and 16-18, as well as specific dependent claim limitations, as explained foregoing. Thus, Examiner's rejections of claims 1, 4, 6-8, and 16-18 in light of Zilberman under 35 USC §102 are respectfully traversed.

USPN 6,766,456 (McKeeth) re: claims 2-3, 5, 12, 14-15

Claim 2 is currently amended to claim "validating a signature comprising at least in part a composite signal". A composite signal was defined on page 5, lines 1-4 of the disclosure as follows:

> A transmission 1 of composite signals 2C comprising a plurality of simple signals 2S is conceivable. For example, a multiple-device 106 transmission 1m produces a composite signal 2C if matching to signals 2 of both devices 106 is required, as does requiring signal match 5 of multiple signal types 21 from a single-device transmission 1.

McKeeth disclosed "The user may input these signals substantially concurrently, or in any agreed upon sequence." [3:18-19] Respectfully submitted that this does not anticipate a composite signal from a single transmission, as "substantially concurrently" does not anticipate simultaneously in a single transmission.

Zilberman disclosed a single device, namely a keyboard, and so failed to anticipate the limitations of claim 2 as currently amended.

Regarding claim 3 and its dependent claims, applicant respectfully traverses Examiner's rejection, as there is no mention found anywhere in McKeeth's specification or claims that suggest McKeeth anticipated "incrementally validating a signature while receiving signature input".

McKeeth [3:52-4:4] disclosed comparison of user IDs and passwords to stored memory; a conventional prior art validation as far as applicant could tell. McKeeth [4:5-28] disclosed an alternative embodiment requiring what McKeeth disclosed as "an implicit, invisible, or non-apparent act". McKeeth disclosed two separate transmissions, possibly input "substantially concurrently", but each validated separately upon input completion, not incrementally during input as claimed. Respectfully submitted that McKeeth failed to disclose incremental signature validation as claimed.

Regarding claim 5 and its dependent claims, applicant respectfully traverses Examiner's rejection, as there was no found mention anywhere in McKeeth's specification or claims that suggest McKeeth anticipated the validation key processing limitations as claimed. With all due respect, applicant could not determine that McKeeth [3:52-4:28] disclosed what Examiner asserted.

Regarding claim 12, McKeeth [6:10-33] disclosed further implicit input, as mentioned foregoing with regard to claim 5. Respectfully submitted that McKeeth in no way anticipated a next key trajectory. For ready reference, below is a quote from the application regarding next key trajectory, from page 11, lines 17-18.

Next key trajectory 7 provides all or part of a reference to the next key 6 used in validation 18, if there is a next key 6.

Regarding claim 14, McKeeth disclosed a "passive act" as follows:

In performing the passive act, the user may wait a predetermined time intervals between entry of various components of the security information or, for instance, may skip a predetermined letter of each component of the security information. [4:14-19]

By comparison, passive validation as claimed is disclosed in an exemplary manner from page 7, lines 5-7:

Another example: incremental validation 181 permits passive termination 77 via absence of next key trajectory 7, or, alternately, completed signal matching 5 of all relevant keys 6.

McKeeth's "passive act" referred to user submission, not validation as claimed. With all due respect, applicant could not determine that McKeeth [6:10-33] disclosed what Examiner asserted.

Regarding claim 15, with all due respect, McKeeth stated absolutely nothing in Examiner's cited [2:49-3:51] reference that anticipated the concomitant limitation of claim 15, of "passive

termination being user-determined during creating said signature validation protocol". Again, McKeeth was referring to submission, not validation.

Examiner's rejections of claims 2-3, 5, 12, and 14-15 in light of McKeeth under 35 USC §102 are respectfully traversed.

Claim Rejections - 35 USC §103

USPN 6,766,456 (McKeeth) re: claims 9-11

Regarding claim 9, Examiner conceded that McKeeth never anticipated validation using a plurality of keys. Claim 9 is currently amended to add the limitation of a key having a trajectory.

USPN 6,766,456 (McKeeth) + USPN 4,621,334 (Garcia) re: claim 13

Examiner conceded that McKeeth failed to anticipate inexact signal matching. To cover that defect of anticipation, Examiner combined McKeeth with Garcia. McKeeth, however, failed to anticipate the claimed "incrementally validating a signature while receiving signature input", as argued foregoing, so, with all due respect, Examiner's combination argument for rejection of claim 13 is mooted.

USPN 6,442,692 (Zilberman) + USPN 5,203,966 (Wittenberg) re: claim 19

Examiner conceded that Zilberman failed to anticipate storing a fake key. To cover that defect of anticipation, Examiner combined Zilberman with Wittenberg. Zilberman, however, failed to anticipate the limitations of claim 4, as argued foregoing, so, with all due respect, Examiner's combination argument for rejection of claim 13 is mooted; but that's not all.

Examiner employed Wittenberg's disallowance of particular passwords [1:35-47; 5:30-68] as a partial basis of anticipation of claim 19. With all due respect, Wittenberg and the claim 19 limitation of a fake key are diametric. Wittenberg disclosed a filtering mechanism for impermissible or unacceptable passwords - passwords that would never be permitted for use. Under Wittenberg's system, these impermissible password candidates would never be stored in the system that stores passwords. Claim 19, on the contrary, as a dependent of claim 4, claims storing a fake key in the system, something entirely opposite of Wittenberg. Examiner's prior art rejection of claim 19 is thus respectfully traversed as having no basis of support whatsoever.

USPN 6,442,692 (Zilberman) + USPN 6,766,456 (McKeeth) re: claim 20-23

Regarding claims 20-23: as argued foregoing, Zilberman failed to anticipate claim 4, the independent claim upon which claims 20-23 are dependent, and so, respectfully submitted, claims 20-23 are allowable over the cited prior art.

Regarding claims 20-23, respectfully submitted that Examiner applied impermissible hindsight in combining Zilberman and McKeeth. Examiner's blithe assertion that "one of ordinary skill in the art would have been motivated… to grant user access…" is insufficient as a justifiable argument of motivation in combining prior art references in light of case law attendant to 35 USC §103(a). There is considerable antecedent consensus in U.S. court decisions that some documentary evidence must exist within the prior art references themselves to justify motivation of a prior art combination as a basis for 35 USC §103(a) rejection.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)

A statement that modifications of the prior art to meet the claimed invention would have been " 'well within the ordinary skill of the art at the time the claimed invention was made' " because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000)

"Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." Dembiczak, 175 F.3d at 999; see also Ruiz, 234 F.3d at 665 (explaining that the temptation to engage in impermissible hindsight is especially strong with seemingly simple mechanical inventions). This is because "[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability— the essence of hindsight." Dembiczak, 175 F.3d at 999. Therefore, we have consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior

art teachings, but some motivation to combine the prior art teachings in the particular manner claimed. See, e.g., In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000) ("Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."); In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998) ("In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed."). Teleflex v. KSR International, 04-1152 (CAFC 2005).

Regarding claims 20-22, respectfully submitted that McKeeth [2:1-30] failed to anticipate next key trajectories. With all due respect, applicant could not determine that Examiner's citation of McKeeth [2:1-30] disclosed what Examiner asserted.

Regarding claim 23, respectfully submitted that McKeeth [3:10-28] failed to anticipate the claimed "at least one transmission comprises input from a plurality of devices". With all due respect, applicant could not determine that McKeeth [3:10-28], cited by the Examiner, disclosed what Examiner asserted. McKeeth disclosed user input from multiple devices at different times, at best "substantially concurrently", that is, different transmissions; whereas claim 23 clearly claims a single transmission comprising input from multiple devices.

Canceled Claims

In compliance with CFR 1.121(c)(4), please cancel claims 10-12.

New Claims

New claim 24, dependent upon claim 2, adds a limitation of a signature comprising at least a composite signal from multiple devices (claim 2), and at least one transmission from a single device (claim 24). No known prior art anticipates combined limitations of claim 2 and claim 24.

New claim 25, dependent upon claim 2, adds a limitation of validating a signature at least in part using an inexact match. No known prior art anticipates the combined limitations of claim 2 and claim 25.

New claim 26, dependent upon claim 2, representing a transmission type or signal type using an ordinal. No known prior art anticipates the combined limitations of claim 2 and claim 26.

Applicant respectfully traverses all of Examiner's claim rejections. Applicant thanks Examiner for careful examination of the claims, drawings and disclosure. Applicant respectfully submits that the currently submitted claims and specification are in order for allowance.